

Appl. No. 09/601,368

Amendment dated September 13, 2004

Reply to Non-Final Office Action of May 20, 2004

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-9. (Canceled)

10-14. (Canceled)

15. (Currently amended) A two-package kit for permanently waving hair comprising:

(a) a cationic dye solution comprising at least one cationic dye, wherein the cationic dye is present in an amount effective to color hair and has a quaternary nitrogen atom that is optionally delocalizable and an $-X=N-$ bond, wherein X is a nitrogen atom or an $-CH-$ group; and

(b) an oxidative fixing solution comprising at least one oxidative fixing agent for permanently waving the hair.

16. (Previously Presented) The kit of claim 15 further comprising a reducing solution comprising at least one reducing agent.

17. (Previously Presented) The kit of claim 16 wherein the cationic dye is represented by formula I:



wherein Z is a nitrogen atom or a CH group;

A and B are independently of one another, a benzene ring or aromatic heterocycle group that is substituted or unsubstituted; and

X^- is an anion.

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18. (Previously Presented) The kit of claim 15 wherein the cationic dye comprises 4-aminophenylazo-2-hydroxy-7-trimethylammoniumnaphthalene chloride, 2-methoxyphenylazo-2-hydroxy-7-trimethylammoniumnaphthalene chloride, 4-amino-3-nitrophenylazo-2-hydroxy-7-trimethylammoniumnaphthalenechloride, 3-trimethylammoniumphenylazo-4N-phenyl-2-methyl-5-hydroxypyrazole chloride, (1-methyl-1-phenyl)-2-(1-methine-4N-methylpyridinium) hydrazine chloride, (1-methyl-1-paramethoxyphenyl)-2-(1-methine-4N-methylpyridinium) hydrazine chloride, (1-methyl-1-paramethoxyphenyl)-2-(1-methine-4N-methylpyridinium) hydrazine methylsulfate, 4-dimethylaminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-dimethylaminophenylazo-2N-methyl-3N-methylpyrazolium chloride, 4-methylaminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-aminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-dimethylaminophenylazo-4N-methylpyridinium chloride, 4-dimethylaminophenylazo-4N-oxidopyridinium chloride, 4-(4-aminophenylamino)phenylazo-2N-methyl-5N-methylimidazolium, or 3-amino-7-(dimethylamino)-2-methoxyphenoxazine-5-ium chloride, or combinations thereof.

19. (Currently amended) A method of permanently waving hair comprising

(a) applying a reducing solution to hair wherein the reducing solution comprises at least one reducing agent;

(b) applying at least one oxidative fixing solution to the hair wherein the oxidative fixing solution comprises at least one oxidative fixing agent for permanently waving the hair; and

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(c) applying to the hair at least one cationic dye in an amount effective to color the hair and having a quaternary nitrogen atom that is optionally delocalizable and an $-X=N-$ bond, wherein X is a nitrogen atom or a $-CH-$ group, and wherein the cationic dye is applied to the hair ~~(i) as a component of the oxidative fixing solution, or~~ ~~(ii) as a component of a third solution after application of the oxidative fixing solution, or (iii) both.~~

20. (Previously Presented) The method of claim 19 wherein the cationic dye is represented by formula I:



wherein Z is a nitrogen atom or a CH group;

A and B are independently of one another, a benzene ring or aromatic heterocycle group that is substituted or unsubstituted; and

X^- is an anion.

21. (Previously Presented) The method of claim 20 wherein A or B or both have one or more substituents selected from halogen atoms, NR_1R_2 groups, or OR_1 groups, wherein R_1 and R_2 are independently selected from hydrogen, a C_1 to C_8 alkyl group, a C_1 to C_4 hydroxyalkyl group, or a phenyl group.

22. (Previously Presented) The method of claim 21 wherein the cationic dye comprises 4-aminophenylazo-2-hydroxy-7-trimethylammoniumnaphthalene chloride, 2-methoxyphenylazo-2-hydroxy-7-trimethylammoniumnaphthalene chloride, 4-amino-3-nitrophenylazo-2-hydroxy-7-trimethylammoniumnaphthalenechloride, 3-trimethylammoniumphenylazo-4N-phenyl-2-methyl-5-hydroxypyrazole chloride, (1-methyl-1-phenyl)-2-(1-methine-

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4N-methylpyridinium) hydrazine chloride, (1-methyl-1-paramethoxyphenyl)-2-(1-methine-4N-methylpyridinium) hydrazine chloride, (1-methyl-1-paramethoxyphenyl)-2-(1-methine-4N-methylpyridinium) hydrazine methylsulfate, 4-dimethylaminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-dimethylaminophenylazo-2N-methyl-3N-methylpyrazolium chloride, 4-methylaminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-aminophenylazo-2N-methyl-5N-methylimidazolium chloride, 4-dimethylaminophenylazo-4N-methylpyridinium chloride, 4-dimethylaminophenylazo-4N-oxidopyridinium chloride, 4-(4-aminophenylamino)phenylazo-2N-methyl-5N-methylimidazolium, or 3-amino-7-(dimethylamino)-2-methoxyphenoxazine-5-ium chloride, or combinations thereof.

23. (Currently amended) The method of claim 19 wherein the cationic dye is present in the oxidative fixing solution ~~or the third solution~~ in an amount of from 0.001 weight percent to 3 weight percent, based on the total weight of the solution.

24. (Previously Presented) The method of claim 19 wherein the solution containing the cationic dye has a pH of 5 or greater.

25. (Previously Presented) The method of claim 24 wherein the solution containing the cationic dye comprises 60 weight percent or greater water.